

IN THE CLAIMS

Please amend the claims as indicated hereunder:

1. (Canceled) A composition for degrading biofilm structure associated with cystic fibrosis and the debris associated therewith, the composition comprising:

an enzyme selected for its ability to dismantle the biofilm structure;

an anchor molecule coupled to an enzyme to form an enzyme-anchor complex, the anchor molecule being selected for its ability to attach to a surface on or proximal the biofilm structure;

wherein the attachment to the surface permits prolonged retention time of the enzyme-anchor complex where the biofilm structure and associated debris are present.

2. (Currently amended) A composition as claimed in ~~claim 1~~ ~~claim 30~~ wherein the enzyme of the first enzyme-anchor complex is selected for its ability to degrade a colonizing matrix.

3. (Currently amended) A composition as claimed in ~~claim 1~~ ~~claim 30~~ wherein the first enzyme-anchor complex is a fusion protein.

4. (Currently amended) A composition as claimed in ~~claim 1~~
claim 30 wherein the first enzyme-anchor complex is constructed
using chemical synthesis techniques.

5. (Currently amended) A composition as claimed in ~~claim 1~~
claim 30 wherein the first enzyme-anchor complex contains
alginate lyase to degrade the biofilm structure.

6. (Currently amended) A composition as claimed in ~~claim 1~~
claim 30 wherein the first enzyme-anchor complex further contains
DNase to degrade debris which are byproducts of the degraded
biofilm structure.

7. (Currently amended) A composition as claimed in ~~claim 1~~
claim 30 wherein the first enzyme-anchor complex comprises an
anchor having an alginate-binding domain.

8. (Original) A composition as claimed in claim 7 wherein
the alginate-binding domain is derived from elastase.

9. (Original) A composition as claimed in claim 7 wherein
the alginate-binding domain is derived from a glycosyltransferase
enzyme.

10. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from an alginate polymerase enzyme.

11. (Original) A composition as claimed in claim 7 wherein the alginate binding domain is a mannose binding lectin.

12. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from heparin.

13. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from fibronectin.

14. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from Concanavalin A.

15. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from a lectin.

16. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from a selectin.

17. (Original) A composition as claimed in claim 7 wherein the alginate-binding domain is derived from the CD44 protein.

18. (Canceled) A composition as claimed in claim 1 further comprising an additional enzyme-anchor complex comprised of an enzyme selected for its ability to act upon debris and byproducts associated with the biofilm structure degradation coupled to an anchor selected for its ability to attach to a surface on or proximal the biofilm structure.

19. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex is a fusion protein.

20. (Currently amended) A composition as claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex is constructed using chemical synthesis techniques.

21. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the additional second enzyme-anchor complex comprises an anchor having an alginate-binding domain.

22. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex contains a proteinase.

23. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex has the capability to

act on DNA.

24. (Currently amended) A composition claimed in claim 23 wherein the second enzyme-anchor complex contains DNase.

25. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex contains mucinase.

26. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex is a cell wall degrading enzyme.

27. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex contains a glycosaminoglycan hydrolase.

28. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex contains a peptidoglycan hydrolase.

29. (Currently amended) A composition claimed in ~~claim 18~~ claim 30 wherein the second enzyme-anchor complex contains proteoglycan hydrolase.

30. (New) A two enzyme-anchor complex composition for degrading biofilm structure associated with cystic fibrosis, the composition comprising:

a first enzyme-anchor complex comprising an enzyme to dismantle the biofilm structure to produce biofilm components and/or byproducts and an anchor selected for its ability to attach to a surface on or proximal the biofilm structure; and

a second enzyme-anchor complex comprising an enzyme that has the ability to act upon the biofilm components and/or byproducts and an anchor selected for its ability to attach to a surface on or proximal the biofilm structure.

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